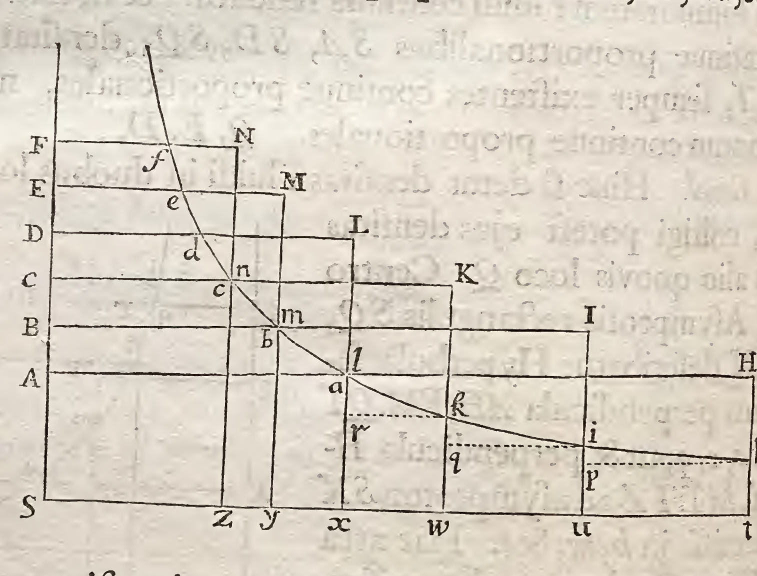
areæ $EeqQ$, $EeaA$ æquales, & inde areæ his proportionales $YmtZ$, $XhmY$ etiam æquales & lineæ SX, SY, SZ id est AH, EM, QT continue proportionales, ut oportet. Et si lineæ SA, SE, SQ obtinent alium quemvis ordinem in serie continue proportionalium, lineæ AH, EM, QT, ob proportionales areas Hyperbolicas, obtinebunt eundem ordinem in alia serie quantitatum continue proportionalium.

Prop. XXII. Theor. XVI.

Sit Fluidi cujusdam densitas compressioni proportionalis, & partes ejus a gravitate quadratis distantiarum suarum a centro reciproce proportionali deorsum trahantur: dico quod si distantiæ sumantur in progressione Musica, densitates Fluidi in his distantiis erunt in progressione Geometrica.

Designet S centrum, & SA, SB, SC, SD, SE distantias in Progressione Geometrica. Erigantur perpendicula AH, BI, CK, &c. quæ sint ut Fluidi densitates in locis A, B, C, D, E, &c. & ipsius gravitates specificæ in iisdem locis erunt $\frac{AH}{SAq.}$, $\frac{BI}{SBq.}$, $\frac{CK}{SCq.}$, &c. Finge has gravitates uniformiter continuari, primam ab A ad B, secundam a B ad C, tertiam a C ad D, &c. Et hæ ductæ in altitudines AB, BC, CD, DE, &c. vel, quod perinde est, in distantias SA, SB, SC, &c. altitudinibus illis proportionales, conficient exponentes



ponentes pressionum $\frac{AH}{SA}$, $\frac{B}{S}$

sint ut harum pressionum s

BI, $BI - CK$, &c. erunt

$\frac{CK}{SC}$, &c. Centro S Asym

la quævis, quæ secet perpend

perpendicula ad Asymptoto

& densitatum differentiæ t

Et rectangula $tu \times th$, uw

$\frac{BI \times ui}{SB}$, &c. id est ut Aa,

SA ad AH vel St, ut th a

Et simili argumento est $\frac{BI}{S}$

Bb, Cc, &c. continue propo

is $Aa - Bb$, $Bb - Cc$, &c.

hisce proportionalia sunt re

rentiarum $Aa - Cc$ vel Aa

vel $tp + uq + wr$. Sunto ej

ma omnium differentiarum,

rectangulorum, puta $zthn$

terminorum & minuantur di

finitum, & rectangula illa eva

adeoque huic areæ proport

mantur jam distantiæ qualib

ne Musica, & differentiæ A

propterea differentiis hisce p

les erunt inter se, & densita

continue proportionales.